

REMARKS

In the Office Action, the Examiner rejected claims 1-5 under § 102 as being anticipated by USP 6,070,108 issued to Andreev et al. (Andreev). The Examiner also objected to claims 6-15 for their dependence upon a rejected base claim. However, the Examiner found claims 6-15 otherwise allowable.

In this Amendment, Applicants have amended claims 1-3 (for grammatical informalities), rewritten 6 and 8 in independent form, and have added claims 16-27. Accordingly, claims 1-27 will be pending after entry of this Amendment.

I. Grammatical Informalities

In this Amendment, Applicants have amended claims 1-3 to correct certain informalities in these claims.

II. Allowable Claims

As mentioned above, the Examiner found that claims 6-15 contain allowable subject matter, but objected to these claims as being dependent upon rejected base claim 1. The Applicants thank the Examiner for this finding of allowability. In this Amendment, Applicants have rewritten claims 6 and 8 in independent form to include all the limitations of their base claim 1. Therefore, as claim 7 depends on claim 6 and claims 9-15 depend on claim 8, Applicants respectfully submit that claims 6-15 are in condition for allowance.

III. Claims 1-5

The Examiner rejected claims 1-5 under § 102 as being anticipated by Andreev. Applicants respectfully traverse this rejection.

Claims 2-5 are dependent directly or indirectly on independent claim 1. Claim 1 recites a method of defining routes for nets in a region of a circuit layout. This method uses a first set of lines to measure length of routes. The method then uses a second set of lines to measure congestion of routes.

Applicants respectfully note that Andreev discloses a congestion-driven placement method. See Andreev's Title, Abstract, Figure 2 (which illustrates a flow chart that ends when a placement is acceptable), and column 2, line 54 to column 7, line 22. Hence, Applicants respectfully submit that Andreev does not disclose, teach, or even suggest the routing method of claim 1, which defines routes for nets in a current layout region by:

- using a first set of lines to measure length of routes; and
- using a second set of lines to measure congestion of routes.

The Examiner identifies column 4, lines 15-67 of Andreev as disclosing the method of claim 1. However, in this and other sections, the referenced method in Andreev recites a method that defines vertical segments, horizontal segments, and column segments to measure the congestion of the chip. Andreev does not identify any segment or line that is used for measuring the length of routes. Therefore, Andreev does not disclose, teach or even suggest the recited method of claim 1, which uses a first set of lines to measure length of routes and uses a second set of lines to measure congestion of routes.

Accordingly, Applicants respectfully submit that Andreev does not render claim 1 unpatentable. As claims 2-5 are dependent on claim 1, Applicants respectfully submit that claims 2-5 are patentable over the cited reference for at least the same reasons that were discussed above for claim 1. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the § 102 rejection of claims 1-5.

IV. New Claims 16-27

New independent claim 16 recites a method of defining routes for nets in a region of a circuit layout. This method uses a first grid formed by a first set of intersecting lines to measure length of routes. The method also uses a second grid formed by a second set of intersecting lines to measure congestion of routes.

Applicants respectfully submit that Andreev does not disclose, teach, or even suggest the method recited in claim 16, as Andreev does not recite a routing method that uses a first grid formed by a first set of intersecting lines to measure length of routes. As claims 17-20 are dependent on claim 16, Applicants respectfully submit that claims 17-20 are patentable over Andreev for at least the same reasons as claim 16. Accordingly, Applicants respectfully submit that claims 16-20 are patentable over Andreev.

New independent claim 21 is analogous to allowable claim 6 rewritten in independent form, except that claim 21 recites a computer program embedded in a computer readable medium, whereas claim 6 recites a method. New independent claim 22 is analogous to allowable claim 8 rewritten in independent form, except that claim 22 recites a computer program embedded in a computer readable medium, whereas claim 8 recites a method. Accordingly, Applicants respectfully submit that claims 21 and 22 are patentable over Andreev.

New independent claim 23 is analogous to claim 16, except that claim 23 recites a computer program embedded in a computer readable medium, whereas claim 16 recites a method. Accordingly, Applicants respectfully submit that claim 23 is patentable over Andreev for the same reasons as claim 16. Moreover, as claims 24-27 are dependent on claim 23,
5 Applicants respectfully submit that claims 24-27 are patentable over Andreev for at least the same reasons.

V. Information Disclosure Statement

Accompanying this Amendment is an Information Disclosure Statement and its accompanying 1449 form.

CONCLUSION

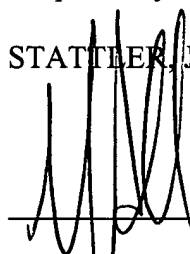
In view of the foregoing, it is submitted that all pending claims, namely claims 1-27, are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance is earnestly solicited at the earliest possible date.

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Respectfully submitted,

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